

# EUROPEAN PATENT OFFICE

## Patent Abstracts of Japan

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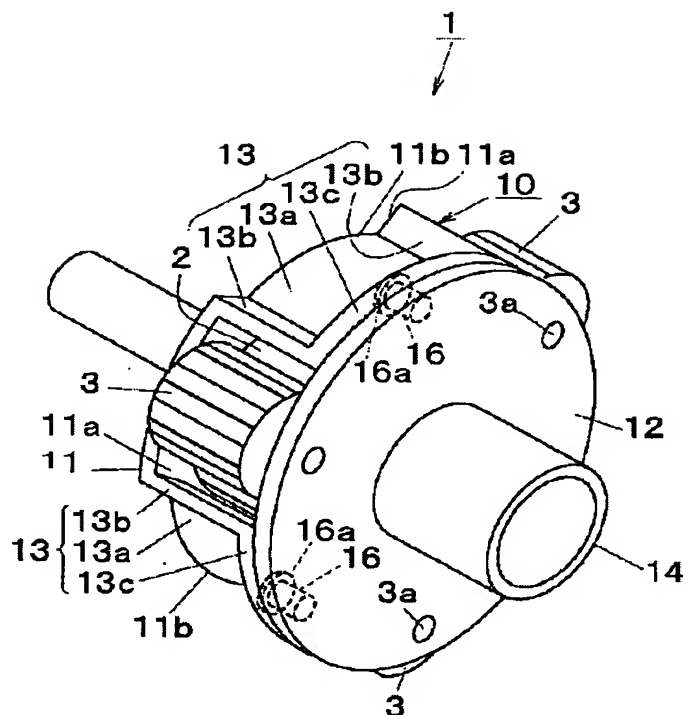
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TITLE : PLANETARY GEAR DEVICE



**ABSTRACT :** PROBLEM TO BE SOLVED: To reduce noise owing to engagement, and improve the durability of each gear by increasing the stiffness of a carrier to prevent deformation, and improving tooth contact of each gear.

**SOLUTION:** A carrier 10 of a planetary gear device 1 is provided with a first supporting portion 11 for supporting a pinion gear 3 on one end surface side, a second supporting portion 12 for supporting the pinion gear 3 on the other surface side, and a coupling portion 13 for coupling both supporting portions 11, 12. The coupling portion 13 is composed of a first coupling portion 13a having a thickness direction extending from the first supporting portion 11 equal to the radius direction of the planetary gear device 1, a second coupling portion 13b having the thickness direction extending from the first supporting portion 11 equal to the circumferential direction of the planetary gear device 1, and a plate-shaped third coupling portion 13c having the thickness direction surface-contacting with an inner surface of the second supporting portion 12 equal to the axial direction of the planetary gear device 1. The coupling portion 13 has high stiffness.

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